

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

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Claims 1-10 (canceled)

Claim 11 (new): An arrangement for a feedback control system connected to an anesthesia machine, the anesthesia machine having a controllable device (10) for controlling a factor that provides a desired property to breathing gases provided to a patient, said arrangement comprising;

5                   means receiving gas samples of the breathing gases of the patient and providing a signal output responsive thereto;

C2                   a user interface (12) for providing a signal output for the property of the breathing gases;

10                   a controlling device (9) coupled to said receiving means and user interface for controlling said controllable device (10) responsive to outputs from said receiving means and user interface;

                  means (15a, 15b, 15c) for periodically providing a signal to said controlling device (9) indicative of the breathing gas factor controlled by said controlled device (10); and

15                   means for providing, to said controlling device, a signal serving as a reference for the operation of said controlled device (10) in controlling the factor, said controlling device (9) comparing said signals and instituting safety measures when the values of said signals differ by a predetermined amount.

Claim 12 (new): An arrangement as claimed in claim 11 wherein said means for periodically providing a signal is further defined as providing a gas sample of a gas outputted by said controlled device.

Claim 13 (new): An arrangement as claimed in claim 12 wherein said means for periodically providing a signal is further defined as coupled to said receiving means for causing said

receiving means to provide a signal output to said controllable device indicative of the breathing gas factor controlled by said controllable device.

7 Claim 14 (new): An arrangement as claimed in claim 13 wherein said means for periodically providing a signal comprises a selector valve (15a) coupled to said receiving means for alternately supplying gas samples of the breathing gases of the patient and gas samples of the gas outputted by said controllable device to said receiving means.

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9 Claim 15 (new): An arrangement as claimed in claim 14 further including at least one backup valve (15b, 15c) for said selector valve (15a).

5 Claim 16 (new): An arrangement as claimed in claim 11 further defined as an arrangement for use in a feedback control system for an anaesthesia machine in which the controllable device comprises at least one of a gas mixer and ventilator.

5 Claim 17 (new): An arrangement as claimed in claim 11 wherein said receiving means comprises a gas monitor (7).

5 Claim 18 (new): An arrangement as claimed in claim 13 wherein said receiving means comprises a gas monitor (7).

5 Claim 19 (new): An arrangement as claimed in claim 11 wherein said controlling device (9) is a controller separate from other elements of the arrangement or the anaesthesia machine.

2 Claim 20 (new): An arrangement as claimed in claim 11 wherein said controlling device (9) is further defined as instituting a safety measure comprising disconnection of control of said controllable device.

Appln. No. 09/857,682  
Amdt. dated August 28, 2003  
Reply to Office Action of May 28, 2003

3 Claim 21 (new): An arrangement as claimed in claim 11 wherein said anaesthesia machine has a safety valve and wherein said controlling device is further defined as instituting a safety measure comprising opening the safety valve.

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4 Claim 22 (new): An arrangement as claimed in claim 11 wherein said arrangement or anaesthesia machine has an alarm and wherein said controlling device is further defined as instituting a safety measure comprising the giving of an alarm signal.

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